

[Displacement Measuring System and Method]

Abstract of Disclosure

Techniques for measuring a displacement include generating a magnetic field using a magnetic field source; measuring a first magnitude of a component of the magnetic field using a sensor disposed within the magnetic field; displacing the magnetic field source; measuring a second magnitude of the component of the magnetic field using the sensor; determining a distance that the magnetic field source is displaced using the first magnitude and the second magnitude. An apparatus for measuring a radius of a hole includes a support member having at least one arm, each having a first end and a second end, the first end attached to the support member; a magnet moveably attached to the support member via the second end of the each of the at least one arm; and a first magnetic sensor fixed to the support member. An apparatus of the invention may further include a second and third sensors.